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ABSTRACT

To investigate dimensions of fathers' participation in family work and to examine the effects of each dimension on children's sex-role related attitudes, this study collected data from 160 fathers of kindergarten and fourth-grade children, their wives, and their children. Fathers and mothers were interviewed jointly as well as separately and they independently filled out a questionnaire. Children were individually interviewed at school. The following categories of data related to dimensions of fathers' participation were reported: (1) intensity of interaction with children; (2) absolute amount of time spent in child care or home chores versus the proportional amount of time spent (i.e., the number of hours spent by the father divided by the number of hours spent by both parents); (3) solo participation versus participation with the mother; (4) performance of household chores versus child care; and (5) responsibility for tasks versus simply performing them. Children's sex-role stereotyping and attitudes were assessed in three domains: current interests and activities, adult occupational roles, and adult family roles. In addition, children's occupational aspirations were also ascertained. Fathers' participation patterns were associated with maternal employment status and parents' sex-role attitudes (specifically, their attitudes about the male role). (AS)

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FATHERS' PARTICIPATION IN FAMILY WORK:
EFFECTS ON CHILDREN'S SEX ROLE ATTITUDES

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1984

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Two contrasting views have been put forth concerning the potential effects of increased fathers' participation in family work on children's sex-role related attitudes and behaviors. The first has roots in Parsonian theory, in which the father is viewed as the instrumental leader of the family and as the bridge to the occupational world outside the home (Parsons, 1955). The father more than the mother is therefore concerned with sex typing and sex-role differentiation of sons and daughters (Johnston, 1963). This view leads to the prediction that increased exposure to fathers may increase traditional sex-role attitudes and behaviors in children.

The second view is that by their involvement in family work, particularly in the context of maternal employment, more highly participant fathers exemplify less sex-differentiated adult role behavior; therefore their children should hold less traditional attitudes and behavior. According to Michael Lamb, "It is plausible to assume that if [the father] were to favor more egalitarian sex roles, these would be fostered, particularly if, by his own behavior, he showed that these were not incompatible with his own gender identification (1976, p. 25)." Lamb's argument suggests that a father's participation must be viewed in the context of parental attitudes in order to understand the consequences for children's sex-role related attitudes and behaviors. The study reported here was designed to address these complexities by investigating a variety of dimensions of fathers' participation in family work within the family context and by examining the effects of each dimension on children's sex-role related attitudes.

Marantz and Mansfield (1977) found no effects of fathers' participation on 5-year-old children's sex typing; however, their data were gathered only through interviews with mothers and did not measure child care done independently by the fathers. As part of a earlier study of competence-related behaviors of pre-school age girls, the authors examined the correlates of fathers' participation in specific child-care tasks (Baruch & Barnett, 1981). Fathers themselves reported the proportion of time each task was done by the father alone, by the father and mother jointly, and by the mother alone. The extent of fathers' independent ("solo") performance of child-care tasks was significantly and negatively related to daughters' stereotyping of peers and of parents.

These studies suggest the need to specify particular forms of fathers' family work, as described below. Moreover, the consequences of fathers' participation, like those of maternal employment, may depend not only on parental attitudes about the father's role but also on the child's sex and age. According to cognitive developmental theory (Kohlberg, 1966), young children's cognitive processes control much of their sex-role related beliefs and attitudes. Only after children attain gender constancy (by age six or seven), that is, when they understand that they will always belong to their own sex, are variations in the attitudes and behaviors of parents likely to be reflected in those of their children. Cognitive developmental theory thus predicts stronger effects of parental influence on older children. The theory also implies a stronger effect of fathers' participation on boys since attachment to the same-sex parent influences the nature of a child's sex-role attitudes. The present study therefore

expanded the authors' prior research by including boys and girls at two age levels--kindergarten and fourth grade.

Dimensions of Fathers' Participation

Since fathers' family work is not a unitary variable, a variety of dimensions were investigated. Among the major dimensions distinguished in prior research are the following (Goldberg, 1981; Levine, Pleck, Lamb & Klinman, forthcoming; Pleck, 1983): 1

1. Intensity of interaction with children, e.g., merely being in the child's presence versus actual interaction.

2. The absolute amount of time fathers spend in child care or home chores versus the amount of time proportional to that of the mother. Particularly with respect to how children perceive adult sex roles, it may be the relative time parents spend that matters.

3. Solo participation versus joint participation with the mother. From the child's perspective, when the father does child care or chores along with the mother, he may seem to be a helper rather than the major responsible parent.

4. Performance of household chores (especially traditionally feminine chores such as meal preparation) versus child care. A father's performance of chores may be a clearer statement to the child of a non-traditional sex role division of labor than time spent with children (Carlson, 1984).

5. Responsibility for tasks versus simply performing them. Responsibility for tasks was defined as "remembering, planning and scheduling", because pilot interviews revealed that responsibility had different meanings for parents; some fathers described themselves as

"responsible" for tasks such as buying groceries because they had to earn the money for the food.

Children's Sex-Role Attitudes

A variety of sex-role related attitudes in children were examined in relation to fathers' participation. As was done in the evaluation of Freestyle, the public television program designed to reduce children's sex-role stereotyping (Johnston, Ettama & Davidson, 1980), attitudes were assessed in three domains: current interests and activities; adult occupational roles; and adult family roles. Within each domain (see below), a series of dimensions were assessed through subscales adapted and modified from the Freestyle measures. In addition, occupational aspirations were ascertained.

A behavioral measure of sex-role flexibility was developed for the study so as to assess the child's willingness to cross sex-role boundaries when appropriate to do so. The focus of this measure was not on performance--how the child routinely performed with respect to sex roles--but on the child's competence, the capacity to ignore conventional restrictions when this is the adaptive choice (Bem & Lenney, 1976; Vedovato, 1978).

In order to examine the context of fathers' participation patterns, data were also collected on maternal employment status and on parents' sex role attitudes, specifically their attitudes about the male role (Erannon & Juni, 1982).

Method

Subjects

Subjects were 160 fathers of kindergarten and fourth-grade children, their wives and their children. Subjects were drawn from the roster of families whose children were enrolled in a mainly white and middle class suburb in the greater Boston area. Subjects were stratified so that at each grade level, half of the children were boys and half girls; within each of the four groups thus formed, half had employed mothers. Criteria for maternal employment were: working at least 17-1/2 hours per week for at least three months prior to being interviewed for this study. Non-employed mothers were defined as employed less than 8 hours per week. All families were Caucasian, two-parent families; the child was the natural child of both parents. The sample was restricted to middle-class families, defined as the father's occupation being Class III or above on the Hollingshead Scale (1957). Data were collected from the fall of 1980 to the spring of 1981.

In accordance with school system requirements, families could not be contacted directly by the researchers. Letters to all families with a kindergarten or fourth-grade child were sent by the school. The study was described to parents as concerning how fathers and mothers spend their time with respect to paid work, family work, and other activities, and how their patterns are related to children's attitudes about the roles of men and women. Interested parents completed an enclosed response card and provided the project with their telephone numbers.

Families who responded positively were categorized into four groups by sex and grade of their child; within each group the respondents were further classified by the mother's employment status. Within each of the

eight groups thus formed potential families were assigned random numbers. Families were contacted by telephone in order of random number by a member of the research team, who determined the father's occupation. This procedure was used to fill all but two cells, for which insufficient response cards were received. The school system then granted permission to contact potential families by telephone; this procedure yielded enough families to fill the remaining two cells.

Because of the procedure used, only an estimate of the response rate is possible; it was approximately 40% of those on the roster. For the same reason, differences between families participating and those refusing could not be studied but are unlikely to be demographic, given the homogeneous nature of the parent population. It seems likely that families in which fathers participated the least were the most likely to refuse, given the current social desirability of fathers' involvement.

Procedure

Children were interviewed individually on two occasions in their schools. As described below, the behavioral measure was administered by a two-person (male and female) team: The questionnaire was administered two weeks later by a female researcher.

Fathers and mothers were interviewed in their homes for approximately two hours by a team consisting of a male and a female staff member. In accordance with Russell's (1978) recommendation, parents were interviewed jointly about the extent of their separate and joint participation in child care and home chores, in paid employment, and in other activities. Demographic data about the family, including the child's birth order, were

also obtained jointly. Each parent was then interviewed in a separate room by a same-sex interviewer to obtain data on parental role strain and well-being (reported in Baruch and Barnett, 1983). Finally, a questionnaire packet was left with each parent to be filled out independently and returned by mail; the packet included measures of parental attitude toward the male role [self-esteem] and sex-typing. Each parent received \$5 for participating.

Measures of Fathers' Participation

Interaction Time. Parents jointly used a chart devised for this study to indicate for five typical week days and for two typical weekend days (i.e., one typical week), the hours during which the child and each parent were home and awake; they then indicated the nature of the child-parent interaction that typically occurred during each of those hours. Hours during which the child was at home and awake and one or both parents were at home were coded jointly by parents and interviewer for level of interaction. Three levels of interactions were described to parents:

Level 1: No interaction: "Parent and child are not involved together. Each is engaged in independent activity with no interaction."

Level 2: Intermittent interaction: "Parent and child each are doing their own thing, aware of each other's activities, and interacting periodically."

Level 3: Intensive interaction: "Parent and child are actively involved together, as in doing homework, playing a game, being engaged in a project."

Parents reported only a small number of hours in which they were home

yet unavailable to the child (level 1 interaction). Fathers reported fewer such hours than did mothers; pilot interviews indicated fathers saw themselves as available almost by definition when they were home. Therefore, level 1 scores were omitted from further analyses.

Intermittent (level 2) and intensive (level 3) interaction were combined into a total interaction score for two reasons. First, empirical examination of correlation patterns showed that the combined variable was more powerful. Second, the distinction between the levels, although conceptually clear to both parents and researchers, was not a good match to real life interactions. For example, conversations held while a parent was chauffeuring a child were experienced as intensive interaction yet technically were intermittent.

On the basis of data from the chart, two other interaction time scores were distinguished and calculated. Solo interaction time was defined as the number of hours per week the father spent in intermittent and intensive interaction when the mother was out of the house or not available. Proportional interaction time was defined as the number of hours the father spent per week in intermittent and intensive interaction divided by the total hours both parents spent in such interaction.

Child-care tasks. A second instrument used to measure fathers' participation was a checklist of 11 child-care tasks, modified in pilot work from Baruch and Barnett (1981). For each task, parents jointly were asked to estimate what percent of the time it was done by the father alone, by the parents together, and by the mother alone (0 - 20%; 20-40%; etc.). Parents then indicated which parent--father, mother, or both--had major

responsibility for the task. The 11 tasks were: take to birthday party; take to doctor/dentist, go to teacher conference; supervise morning routine; clean up room; spend special time at bedtime; take to or from lessons; buy clothes; take on outing (museum, park); supervise personal hygiene; stay home, or make arrangements for care, when child is sick. In the scoring, a "1" was assigned to 0-20% time, a "2" for 20-40%, etc.

Fathers' performance of home chores. Parents jointly reported the hours each spent for a typical week on nine household tasks. Five are commonly seen as "feminine" chores (meal preparation, cleaning house, laundry, grocery shopping, meal clean-up). Four "masculine" tasks were included: general repairs, yard work, car repairs, paying bills. Parents then jointly indicated who was responsible: the father, the mother, or both.

The absolute amount of time per week each parent spent in each chore was calculated. Scores were combined for the five feminine tasks, for the four masculine tasks, and for total tasks. Proportional scores were then calculated for sets of tasks; the variable of interest here is the proportion of the total time both parents spent in feminine chores that was spent by the fathers.

Responsibility for child-care tasks and home chores. Responsibility, defined as "remembering, planning, and scheduling," was assessed both for the 11 child-care tasks and the nine home chores. Overall fathers reported low levels of responsibility. Of 160 fathers, 113 reported they were responsible for no child care tasks, 35 were responsible for 1, and 12 for 2-3. For feminine home chores, 150 fathers were not responsible for any; 3

were responsible for 1, and 2 for 2 to 3. Because of the constricted range of these two variables, they were omitted from further analyses.

In sum on the basis of exploratory data analysis and conceptual considerations, five variables reflecting major dimensions of fathers' participation were selected for use in later analyses. Analogous data were used to construct the same five scores for mothers' participation; some comparative data are reported below. Table 1 summarizes the five variables.

Insert Table 1 about here

Other Parental Variables

As noted above, parental sex-role attitudes may influence those of their children, with parents' sex-role related behavior. A measure of attitude toward the male role was used to assess each parent's sex-role attitude (Brannon & Juni Attitude Toward Masculinity Scale, short form, 1982). Using a 1-7 scale, parents indicated the extent to which they agreed with such statements as, "It bothers me when a man does something that I consider feminine, and "Success in his work has to be a man's central goal in life." In addition, Bem's Sex Role Inventory (1974) was used to assess self-rated masculinity, femininity, and androgyny (calculated as recommended by Taylor & Hall, 1982). However, fathers' and mother's scores on the Bem Inventory were found to be unrelated to fathers' participation (see also Radin, 1980), and to children's sex-role scores and thus were not analyzed further. Children's Sex Role Attitudes and Behavior

Behavioral Flexibility. A measure was developed to assess the child's capacity to cross sex-role boundaries when there was an incentive to do so. Each child was taken to a private room in his or her school by a male and a female interviewer equipped with two cameras. The child was told: "We're here with cameras today because we need some pictures of children doing different things for a book we're writing. You'll be helping with some of the pictures--you get to choose which ones--and you'll also get a picture of yourself to keep. Because we appreciate your help, we'll be giving you some tokens of appreciation--some nickels--for the pictures you pose for. But we need some pictures more than others, so we'll be paying one nickel for some pictures and two nickels for others. We'll tell you which ones get how many nickels before you choose. One other thing you should know--to show the children here about our book, we'll be taking some of the pictures and making a display like this one (a poster consisting of pictures of children posing with the objects to be used) to put up in your classroom. So maybe your friends will see your picture!" The last statement was included to provide some real life consequences of a sex-inappropriate choice.

Instructions for each series of photographs followed the same format: "First, we need pictures of children playing football and pictures of children jumping rope. (Same-sex interviewer-photographer points to two objects laid out on a table by the second interviewer. We can pay one nickel for (sex appropriate) and two nickels for (sex inappropriate)."

There were a series of nine photographs, three in each of three domains, as follows (male items given first).

Current interests and activities: a. football or jump rope; b. electric train or doll house with vanity table; c. model car kit or embroidery sampler.

Adult occupational roles: a. pilot (hat) or nurse; b. police officer (badge) or secretary/ (typewriter); c. physician (stethoscope) or librarian (books, cards, date stamp and stamp pad).

Adult family roles: a. shoveling snow (shovel) or serving a meal (casserole, spoon, pot holder); b. fixing object in house (wrench & pipe) or cleaning house (broom & dustpan); c. fixing car (windshield wiper & screwdriver) or baby care (baby doll & bottle).

Finally, each child was invited to pose with a "free choice"--any one of the 18 objects--and was given a Polaroid print of this pose.

The order in which the one-nickel versus two-nickel objects were presented was reversed for half the children, as was the left-right position of the objects. The camera was a 35 millimeter unit with a flash. Because of costs, and since actual pictures were not needed, film was used only occasionally, although the flash unit was used each time.

Scoring for this measure was calculated by assigning one point for each non-stereotyped choice and two points for each stereotyped choice. Thus the potential range of scores was from 9 to 18, with a low score indicating greater flexibility.

Sex-role attitudes. As noted, the questionnaire developed was an extension and modification of that used in evaluating the Freestyle public television program, (Johnston, et al., 1980). In each of the three domains described above--current interests and activities, adult occupational

roles, and adult family roles--a series of scales assessed a variety of attitudes about male and female sex roles. Scale items were based on those used in prior studies and included most items used in the photography measure.

In all scales, high scores indicated stereotypic attitudes. As is shown below, for fourth graders, 4- and 5-point scales were used. For kindergarteners 3-point scales with visual aids were used; for example, to illustrate the scale "a good idea--a bad idea" light bulbs with various degrees of sparkle were shown; for the scale inquiring about the difficulty of various occupations or tasks, cards showed teddy bears lifting weights.

Current interests and activities. For each scale listed below, there were 18 items for fourth graders and 16 for kindergarteners. The nine male items were: play baseball; help adult work on car; play football; play basketball; do science project; play with electric trains; build model kits; help adult fix things around the house, fix bike (4th grade only). The nine female items were: do gymnastics, dance, help adult cook meal; help care for baby; help teach younger child a game; jump rope; sew; do art project; put on puppet show (4th grade only). There were three scales in this domain.

- a. preference (4-point scale): How much would you like to _____ if you had a chance (from don't like it at all to like it a/lot)?
- b. relative competence of each sex (5-point scale): How good are boys and girls your age at _____ (from inappropriate sex is much better to appropriate sex is much better)?
- c. beliefs about who should do each (4-point scale): How do you feel

about children doing these things: Is it (from very good to a very bad idea) for boys/girls your age to _____? (Asked for the sex-inappropriate items.)

Adult occupational roles. Children were asked about 16 occupational roles. The eight male occupations were: pilot; boss of business; athlete; mechanic; police officer; doctor; truckdriver; mayor or governor. The eight female occupations were: teacher; hairdresser; secretary; nurse; painter; librarian; dancer; homemaker. There were five scales in this domain.

- a. preference (4-point scale): When you grow up, would you definitely not want that job (to definitely want it)?
- b. relative competence of each sex (5-point scale): How good do you think men and women are at doing these jobs (from inappropriate sex is much better to appropriate sex is much better)?
- c. beliefs about who should do each (4-point scale): How do you feel about men (women) doing these jobs?
- d. perceived difficulty (4-point scale): How hard do you think being a _____ is (from very easy to very hard)? For scoring, the mean difficulty level attributed to female jobs was subtracted from the mean difficulty attributed to male jobs.
- e. beliefs regarding sex composition of occupations (5-point scale): For each occupation, children indicated their perception of the sex composition (from almost all are inappropriate sex to almost all are the appropriate sex). This scale was included to help interpret other scales. For example, if children now believe most physicians are women, a girl's desire to be a physician would not have the same meaning as in the past.

Adult family roles. Children were asked about 12 family tasks. The six male items were: fix things around house; earn money to support family; take care of yard; care for car; keep track of and pay bills; decide important things. The six female items were: cook/serve meals; care for children; laundry; clean house; meal clean up; comfort child. There were three scales in this area.

a. beliefs about who should do each (5-point scale): Who should do the following (from sex-inappropriate parent only to sex-appropriate parent only)?

b. perceived difficulty (4-point scale): How hard do you think it is to do each of the following (from very easy to very hard)?

c. perceived "actual" family role (5-point scale): Who in your family does each (from sex inappropriate parent only to sex appropriate parent only)?

The eleven scales were moderately intercorrelated (mean intercorrelation = .51). Examination of the relationships of scale scores to the major variables of the study, especially fathers' participation, showed no differential patterns of findings. That is, relationships did not differ by the particular domain (e.g., adult family roles) or the particular subscale format (e.g., difficulty). Nine scale scores were therefore combined to create a total stereotyping score; The actual family role and the perceived sex composition of occupations scale were not included since they explicitly ask about the child's perception of reality. Stereotyping scores were transformed into z scores because of the difference in scale length for kindergarteners and fourth graders.

Occupational aspirations. Prior to the adult occupational role section of the questionnaire, each child was asked about his or her occupational aspiration: "When you grow up, you'll be choosing a job that grownups do. That's a long time from now, but can you tell me what you would most like to be, what job you want to have?" Two scores were assigned to the response: traditionality and prestige. Traditionality of choice was determined by census data on sex distribution within the occupation (Zuckerman, 1982). Choices for which 2/3 or more workers were the same sex as the child were scored as 3 = stereotyped. Those with 2/3 or more of opposite-sex workers were scored as 1 = nonstereotyped, and a score of 2 was assigned to choices falling between these two categories. For prestige ratings, Siegel's scale (1971) was used.

Gender constancy. Gender constancy of kindergarten children was determined in the questionnaire session. Perceptual transformation materials were used (Marcus & Overton, 1978) consisting of a set of cartoon-like figures (DeVries, 1969; Emmerich & Goldman, 1972). One picture set showed a girl who had long hair and was wearing a dress. The top of the picture could be flipped to show her with short hair; and the bottom could be flipped to show her wearing pants. A second picture set showed a boy who had short hair and was wearing pants. When the top portion was flipped, he was shown with long hair. When the bottom portion was flipped, the figure was wearing a dress. The child was asked a series of questions beginning with the same-sex figure. For the set with the female figure, the child was told, "This is a girl and her name is Janie. If Janie put on boy clothes like this (flip bottom portion only), what

would she be? Would she be a girl or would she be a boy?" The female-figure series culminated in the following question: "If Janie has her hair cut short like this (flip top portion), and wears boy clothes like this (flip bottom portion), what would she be? Would she be a girl or would she be a boy?" The child also responded to a parallel series of questions in which the male figure was the stimulus. Answers to the last items in each series were scored as an index of gender constancy. If on both questions the child recognized that the stimulus figure did not change sex regardless of the manipulations, he/she received a score of 3; if gender constancy was recognized for only one figure, the child received a score of 2; and if the child failed both items, he/she received a score of 1.

Results

Description of sample

The mean age of fathers was 41.11 years, and of mothers, 39.38. Of the 80 employed mothers, 39 worked from 17 to 29 hours per week; 37 worked 30 or more hours per week; four had lowered their work hours below 17 hours between the telephone screening and our visit. The mean occupational prestige level (Siegel, 1971) of fathers was 55.78, the level assigned to an accountant and to a social worker. The mean occupational prestige level of employed mothers was 47.6, which is the level assigned to a bookkeeper and to the owner of a real estate agency. The mean educational level of both mothers and fathers corresponded to a college degree. Mean family income was in the mid \$30,000 range for the total sample. 3 Fathers' mean income was approximately \$23,000; that of employed wives was \$7,600,

reflecting the high proportion of part-time workers among women and the low pay scales of women's jobs. Of the 160 families, 6 had one child, 87 had two children, 47 had three children, and 20 had four or more children. Of the 80 boys, 43 were first-born, as were 40 of the 80 girls.

With respect to parents' sex role attitudes, assessed by the Brannon Scale, fathers were more traditional than mothers (range = 1-7). The mean for fathers was 3.76, (SD = .58), for mothers the mean was 3.38 (SD = .64), a difference significant at the .001 level (t = 6.91).

Fathers' Participation Variables

Interrelationships of Variables

As is indicated in Table 2, all intercorrelations of the five

Insert Table 2 about here

participation variables are significant but moderate except for proportional interaction time, which is strongly correlated with performance of feminine home chores, also a proportional measure (r = .65, p < .001), and (as expected) with total interaction time (r = .54, p < .001). Overall, the variables measure relatively independent aspects of fathers' family work.

Absolute Measures

Total interaction time. For the sample as a whole, fathers spent an average of 29.48 hours per week (SD = 8.07), while mothers spent 44.45 hours per week (SD = 11.04). Fathers' total interaction time did not differ significantly by wives' employment status; means were 30.13 (SD =

7.77) and 28.84 ($SD = 8.36$) for those with employed and non-employed wives, respectively ($t(156) = 1.01$, ns). 4

Solo interaction time. Overall, fathers spent an average of 5.48 hours per week ($SD = 4.84$) interacting alone with their children. Mothers, in contrast, spent an average of 19.56 hours ($SD = 10.77$). The difference between fathers with employed wives ($M = 5.66$, $SD = 4.97$) and those with non-employed wives ($M = 5.31$, $SD = 4.72$) was not significant ($t(157) = .45$, NS). Only 53 of 160 fathers spent seven or more hours per week, that is, the equivalent of a day, interacting in the absence of the mother; 53 spent 3 to 6 hours, and 54 spent 0 to 2 hours. 5

Proportional Measures

In contrast to measures of absolute time, the three proportional measures showed significant differences associated with maternal employment status.

Proportional interaction time. Overall, fathers spent 39.5% of the total interaction time of both parents ($SD = 7.6\%$). For fathers with employed wives, the mean proportion was 42% ($SD = 7\%$) for those with non-employed wives it was 37% ($SD = 8.0\%$), a difference significant at the .001 level ($t(157) = 4.12$).

Solo performance of child-care tasks. The proportion of time spent by the father alone was just under 20% for fathers with non-employed wives. For fathers with employed wives, the corresponding proportions were just over 30%. The difference between those with non-employed wives (raw score = 1.46, $SD = .35$) and those with employed wives (1.65, $SD = .41$) was significant ($t(157) = 3.13$, $p < .01$).

There was only one task fathers did alone more than 40% of the time: spend special time at bedtime (about 50%). They did between 20% and 40% of the following tasks: supervise personal hygiene and the morning routine, take the child to or from parties; take on outings; and take to or from music lessons. They did the lowest proportion (under 20%) of: buy the child's clothes; go to a teacher conference.

Feminine home chores. Overall, fathers did an average of 16% of the set of five traditionally feminine chores ($SD = 12.8$).⁶ The difference between the proportion for fathers with employed wives ($M = 19\%$, $SD = 13\%$) and those with non-employed wives ($M = 13\%$, $SD = 12\%$) was significant ($t = (158) 3.06$, $p < .01$). Detailed data for the sets of feminine and masculine chores and for each item are presented in Table 3.

Insert Table 3 about here

Effects of children's birth order, sex and grade level on fathers' participation

Zero order correlations of birth order with participation variables were calculated and showed only one significant relationship. For boys only, fathers of later-borns were more involved in solo performance of child care tasks ($r = .21$, $p < .04$).

To examine the main and interactive effects of the sex and grade level of the child on fathers' participation, two-way analyses of variance were performed. The only significant relationships found were a main effect for grade level for the three variables measuring the time fathers spend with

children. For total interaction time $F = 6.43 (1,154), p < .02$; for proportional interaction time $F (1,154) 7.28, p < .01$ and for solo interaction time $F (1,154) 5.35, p < .02$. Thus fathers with younger children spend more time interacting, but then are not more involved relative to the mother in specific child care tasks or traditionally feminine home chores.

Children's Sex Role Attitudes

Equal numbers (16) of boys and girls, about 40%, had attained gender constancy, (i.e., gave two correct responses), however, more boys (22) than girls (17) gave two wrong answers. Children maintained constancy better with a same-sex stimulus figure. For girls, 57.5% responded correctly to the same-sex stimulus versus 47.5% for the opposite-sex stimulus. For boys the corresponding figures were 51.3% and 41.0%. Gender constancy scores were not significantly correlated with any other children's sex-role score, consistent with Marcus & Overton, 1978, nor with maternal employment status, or any father participation variables.

Behavioral Flexibility

Data on children's responses to the photography measure of sex-role flexibility are presented in Tables 4 and 5. Table 4 shows the means

Insert Table 4 and 5 about here

and standard deviations of scores by grade and sex. The difference by grade level was not significant. Although boys' scores were consistently higher than those of girls, indicating less willingness to make

sex-inappropriate choices, among kindergarteners, the sex difference in scores was not significantly different ($t = (79) .53$, n.s.). Among fourth graders, the differences attained only .06 level of significance ($t = (77) 1.94$).

Data on specific item choices are presented in Table 5, which shows the percentage of sex typed responses by grade and sex. Items varied greatly in the extent to which children chose the sex-inappropriate object to be photographed with. The pairs of physician/librarian, policeman/secretary; and shovel snow/serve dinner had particularly high frequencies of non-stereotyped choices. Two possible explanations are that (a) the attractiveness of the pair of objects was more discrepant in some pairs than in others and (b) certain sex-inappropriate choices were not perceived as such by the children. The differential attractiveness explanation requires a full test of the attractiveness of each item to child "judges" in the absence of monetary incentives. Inspection of the sex-role attitudes questionnaire data suggests that children were aware of the actual sex composition of these occupations, 7 consistent with findings of Getty and Conn (1981) that 70-85% of kindergarteners saw physician as a job done by men and librarian as a job done by women. Our subjects nonetheless were interested in entering these occupations even where sex inappropriate, and they approved of others doing so, a finding consistent with Franken (1983). The visual attractiveness interpretation thus seems the more likely one but must be tested in further studies.

There was no relationship between children's scores on the photography measure and any of the five fathers' participation variables for any of the

four grade-sex groups. Thus, under conditions of a monetary incentive in a structured situation, children's sex-role flexibility was not found to be associated with paternal participation in family work. Moreover, maternal employment was not associated with flexibility scores.

Children's occupational aspirations

Table 6 shows the traditionality and prestige ratings of children's

Insert Table 6 about here

occupational aspirations by grade and sex. At each grade level, boys made more traditional and prestigious choices than did girls, 7 and fourth graders made less traditional and more prestigious choices than kindergarteners. Two-way analyses of variance by grade and sex indicated that for traditionality of choice, there was a significant main effect of sex ($F(1,133) = 29.708$) and for prestige of choice, the main effect of class ($F(1,133) = 3.53$) was significant at a nearly conventional level ($p < .06$). For each of the four grade/sex groups (e.g., kindergarten boys), zero-order correlations were examined between the two aspiration scores (traditionality and prestige) and the following variables: the five father participation measures, maternal employment status, father's and mother's occupational prestige, child's stereotyping score, and gender constancy (kindergarteners only).

For traditionality, among kindergarteners, there were no significant relationships for the boys; for girls, the greater the proportion of child-care tasks their fathers performed, the less traditional their choice (r

-.46, $p < .01$). The prestige of kindergarten boys' choices was related to maternal employment status; with more prestigious choices among those with employed mothers. For girls there were no significant correlates of prestige.

Among fourth graders for girls there were no significant correlations for either traditionality or prestige of choice. For boys, those with employed mothers made more prestigious choices ($r = .34$, $p < .05$). Choices were significantly more traditional among boys whose fathers scored higher on proportional interaction time ($r = .32$, $p < .05$) and on solo interaction time ($r = .32$, $p < .05$). That is, the greater the father's participation, the more sex-typed the boy's occupational aspiration. This puzzling pattern recurs in other findings for children and is discussed below.

Children's Stereotyping: Attitude Questionnaire

Tables 7 and 8 present the mean scores on the 11 subscales for

Insert Tables 7 and 8 here

kindergarteners and fourth graders, respectively, by sex of child. As noted above, 9 of the 11 scales (excluding "occupational beliefs" and "own family") were combined to create total stereotyping scores, which were converted to z scores. Means and standard deviations of stereotyping scores by grade and sex are presented in Table 9.

Insert Table 9 about here

Fourth graders were significantly more stereotyped than kindergarteners ($t(158) = -14.46, p < .001$); scores for boys and girls were not significantly different ($t(158) = 0.91, ns$).

Zero-order correlations between mean stereotyping scores and fathers' participation variables for each of the four grade-sex groups are shown in Table 10. Although negative relationships were more frequent and somewhat

Insert Table 10 about here

stronger for the older children, none of the correlations reached conventional levels of significance. Moreover, among kindergarteners stereotyping was positively related to several forms of participation.

Children's Stereotyping: Multiple Regression Analyses

Effects on stereotyping of sex, maternal employment status, father's and mother's sex role attitudes and (for kindergarteners) gender constancy scores were analyzed by multiple regression analyses. With mean stereotyping score as the outcome variable, hierarchical multiple regression equations were estimated separately for kindergarten and fourth-grade children so as to include gender constancy for kindergarteners. Separate equations were estimated for each of the five father participation variables. In the first step, the variables entered were child's sex, maternal employment status, mother's attitude toward the male role, father's attitude toward the male role, and one father participation variable. Attitude scores were trichotomized into categories of high-, medium-, and low-traditionality. For kindergarteners only,

gender constancy was also included in this first step. In the second step of each equation, an interaction term was entered. To investigate whether the effects of father's participation on children's stereotyping are moderated (conditioned) by the child's sex, maternal employment status, mother's attitude toward the male role, father's attitude toward the male role, and for kindergarteners, gender constancy interaction terms were calculated for each of these times each father's participation variable, e.g., sex by total interaction time.

For kindergarten children, none of the 25 regression models estimated was significant. For fourth graders, as can be seen in Table 11,

Insert Table 11 about here

11 of the 20 models were significant.

The first step of the model was significant for all father participation variables except solo interaction time. For total interaction time $F(5, 61) = 2.46$ ($p < .05$); for proportional interaction time $F(5, 61) = 2.57$, $p < .05$; for child-care tasks $F(5, 61) = 2.58$, $p < .05$; for feminine chores $F(5, 61) = 2.75$, ($p < .05$). None of the fathers' participation variables per se was a significant predictor of stereotyping, but only for solo interaction was the beta essentially zero: Other betas were negative although weak. The predictive power of the first step came primarily from mother's attitude toward the male role, which was consistently the only significant individual predictor of children's stereotyping (betas ranged from .29 to .33). That is, children's

stereotyping was significantly greater, the more traditional the mother's attitude toward the male role.

In contrast, the father's attitude toward the male role had no significant main effect on children's stereotyping; rather, there was a very slight but consistent trend for children's stereotyping scores to be higher the less traditional the father's attitude was. This unexpected pattern is discussed below.

Entering the interaction term in step 2 resulted in a significant increase in R^2 in five models.

For regressions that included the participation variables of total interaction time and solo interaction time, none of the four interaction terms resulted in a significant increase in R . Thus the absolute measures of fathers' participation even when conditioned by other variables, did not significantly predict children's stereotyping. For the proportional measures, results were quite different. Only the interaction terms of child's sex with father's participation consistently failed to result in a significant increment in R^2 . The interaction of participation with maternal employment status added significantly for the models that included the participation variables of child care tasks and feminine chores. For child care tasks, $F(6, 60) = 3.21, p < .01$; for feminine chores $F(6, 60) = 2.51, p < .05$. Among children with employed mothers, father's involvement in child-care tasks and in feminine chores was associated with less stereotypic attitudes.

The interaction of father's participation with mother's attitude toward the male role also had a significant incremental effect upon the

prediction of children's stereotyping. The increment was significant for two of the three proportional variables; child-care tasks and feminine chores. For child care tasks, $F(6, 60) = 4.14, p < .01$; for feminine chores $F(6, 60) = 3.16, p < .01$. Thus, negative effect of fathers' participation on children's stereotyping was stronger when mothers held non-traditional attitudes toward the male role.

The interaction of fathers' participation with fathers' attitude toward the male role reflected the puzzling pattern already noted. As is indicated by the negative Betas in Table 11, participation had stronger negative effect on children's stereotyping when fathers held traditional attitudes toward the male role. However, only for feminine home chores was the increment in variance explained by this interaction significant ($F(6, 60) = 3.84, p < .01$).

Inspection of cell means consistently indicated that those fathers who were highly involved but who believed in a traditional male role had children who were particularly low in stereotyping, lower than children whose fathers were highly involved and subscribed to non-traditional male role ideology. Perhaps a discrepancy between a father's behavior and his beliefs makes sex-role issues more salient and noticeable to children, creating a seed bed of feminist attitudes. In contrast, when men not only do a great deal of family work but believe they should do so, their pattern may go unnoticed by their young children, who may therefore neither think about nor question conventional thinking about sex roles.

Discussion

Overall, the effects on children's sex role attitudes of fathers'

participation in family work per se are weak. Among older children, when fathers do a high proportion of family work relative to the mother, and the mother holds non-traditional attitudes toward the male role, (thus presumably endorsing the father's involvement), children are significantly less stereotyped. The difference in our findings for the two grade levels is consistent with cognitive developmental theory, which predicts that parental attitudes and behavior are more influential after children have attained gender constancy. Thus, the developmental stage of the child interacts with the total parental context in shaping how a father's family work will affect the child's sex role attitudes.

Among kindergarten children there was evidence that father's participation is associated with greater sex-role stereotyping. This pattern is consistent with earlier research derived from identification theory, predicting and finding greater sex typing among young children, especially boys, whose fathers are warm and nurturant (e.g., Mussen & Rutherford, 1963). Among young children, father's involvement in family work may be perceived more in terms of warmth and nurturance than in terms of nontraditional sex roles. Furthermore, our data are consistent with earlier studies showing a father's masculinity to be unrelated to that of his son (Lamb, 1976). Kindergarten boys tended to be more stereotyped, i.e., more "masculine" in sex typing, the more participant their fathers, i.e., less traditionally masculine. Alice Rossi has recently argued that children in egalitarian families see fathers as more forceful and more strict and that at least for sons, "Men bring their maleness to parenting... Hence the effect of increased male investment in primary care

of sons is not to produce sons who would be more like daughters, but to either enhance gender differences, or if there is significant co-parenting, to enlarge the range of characteristics shown by both sons and daughters. (p. 19) Our study suggests that the meaning of participation as experienced by the child varies, influenced by both child and parent variables.

As discussed above, a child whose father does a great deal of family work, but whose mother does not believe men should do so, is unlikely to develop non-traditional attitudes. Further, the father's attitude about men's role has puzzling effects on sex-role attitudes, i.e., less stereotyped attitudes among older children whose fathers do more but who also oppose a non-traditional male role. Further, fourth grade sons of more participant fathers were more sex typed in their occupational aspirations. We have suggested that a kind of feminist consciousness-raising may occur in families where the highly participant father is negative toward men's performing such work. Thus, father's participation per se does not necessarily reduce children's stereotyping, but in particular contexts, it may do so, as when the wife endorses the father's behavior; or when a father calls attention to his non-traditional behavior, implicitly or explicitly, because of his traditional beliefs.

A second important finding of our study is that the various forms of participation differed in their effects on children's sex role attitudes. Among fourth graders, regression analyses indicated that the proportion of fathers' independent performance of child care tasks and traditionally feminine household chores had the greatest counterstereotyping effects. The proportion of fathers' participation relative to mothers' may be more

important than the absolute extent of participation because the child's concept of sex roles depends more on the degree of overlap in parents' roles than on what each parent does per se.

Findings were presented in some detail concerning the extent of fathers' participation in various forms of family work. Men spent a great deal of time in interactions with children in conjunction with their wives. For example, fathers of fourth graders whose wives were not employed spent almost 30 hours per week in such interaction. However, men still spend little time alone with their children and they do a small proportion of traditionally feminine chores and of child care tasks. Yet as Russell (1978) argues, the cutting edge of sex-role change may lie in those forms of participation in which fathers become the responsible parent and is in charge of family work rather than helper.

Findings about the extent of fathers' participation depend so greatly on how participation is defined that it is difficult to make meaningful comparisons with results of other studies (Pleck, 1983). For example, there are inconsistencies in the definition of the nature of interaction; where levels of interaction are distinguished, what is considered intense interaction in one study may be seen as mere availability in another study. Overall, our data on the proportion of time fathers spend relative to mothers, on amount of time in solo interaction, and on fathers' low levels of responsibility are consistent with studies reported in Pleck's review (1983). According to Pleck (1983) the time fathers report they are at home and available to children typically ranges from 2.4 to 3.9 hours per day, while time spent by a father in active interaction alone with his child is

typically found to be less than a half hour per day.

The low level of fathers' responsibility reported in our study may be seen as evidence that men's involvement in family work is somewhat superficial, in that women must still do the "real" work of child care and home chores by planning and supervising the tasks that fathers do. An alternative interpretation should also be considered, however; that some women find it difficult to relinquish their special, central role in the family, to yield "turf" and thus may find that retaining responsibility allows them to stay in charge of family life (Hoffman, 1983; Lein, 1979). Further progress in understanding how fathers' involvement in family work affects children will depend on assessing the exact form of the participation its meaning to children of different ages, and the context in which it occurs, especially the attitudes of both fathers and mothers.

Footnotes

1. Some researchers have distinguished between time spent with a child alone and time spent with other children present; however, our pilot work indicated that for the most part the presence of other children was a function of family constellation, housing design, and chance.

2. For all the fathers in this study, the weekday distinction matched their work schedules; that is, no father was regularly off on a weekday and at work on a weekend day.

3. Scoring categories for the income variables were as follows: 1 = 0 - \$3,999; 2 = 4,000 - 6,999; 3 = 7,000 - 9,999; 4 = 10,000 - 15,999; 5 = 16,000 - 20,999; 6 = 21,000 - 28,999; 7 = 29,000 - 29,999; 8 = 40,000 - 64,999; 9 = 65,000 +. Average income is thus estimated from these data.

4. These summary figures conceal important differences in group patterns. During the work week, mothers spent considerably more time than fathers in both intermittent and intensive interaction, and in families with non-employed mothers, this difference was greater. However, weekend hours were similar overall for fathers and mothers. Detailed data on the extent of fathers' participation are available from the Wellesley College Center for Research on Women (Correlates of Fathers' Participation in Family Work: A Technical Report, No. 106).

5. Examination of the interview protocols of fathers who spent 7 or more hours revealed that many had wives who worked atypical hours (e.g., nurses on the 3-11 shift); others in this group reported a determination not to be like their own fathers, typically described as "never there."

6. The mean number of hours spent in feminine chores was 5.79 for fathers with employed wives and 4.31 for fathers with non-employed wives. In comparison, employed wives spent 26.7 hours in feminine chores; non-employed wives spent 31.8 hours. For the set of four masculine chores, fathers spent an average of 5.96 hours per week ($SD = .42$); mothers spent an average of 3.18 hours ($SD = .37$). Thus, although masculine chores are done only sporadically, in contrast to the "dailiness" of feminine chores, fathers spend similar amounts of time on each set.

7. The possibility that some sex-inappropriate choices were not viewed as such by the children was examined through inspection of data for analogous items on the questionnaire. We examined responses to three subscales (beliefs about sex composition; preference; and stereotypes) of the adult occupational role section of the questionnaire for the pair of items, librarian and physician; for this pair, over 75% of kindergarten boys and of fourth grade boys and girls had chosen the sex-inappropriate item. For librarian, with respect to beliefs about sex composition, only 7.5% of male kindergarteners thought librarians were mostly men; no fourth-grade boys thought librarians were either "more men than women" or "almost all men." Nevertheless, 75% of male kindergartners and 62% of fourth grade boys either "might want" or "definitely want" to be librarians and 72.% of male kindergarteners and 60% of fourth grade boys thought it was either "an OK idea" or "very good idea" for men to be librarians. For physician, among fourth grade girls, 60% thought physicians were either almost all men or more men than women; none thought there were more female than male physicians. Nevertheless 55% either probably or definitely would be

interested in becoming a physician. No girl thought it was a bad idea for a woman to be a physician, and 45% thought it was a very good idea.

8. Because high-prestige occupations are male-dominated, a boy's choice of a non-traditional occupation is likely to result in a lower prestige score, thus confounding traditionality and prestige.

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Table 1

The Five Father Participation Variables

Variable	Operational Definition
Absolute Measures	
Total interaction time	Number of hours per week the father spends in intermittent and intensive interaction with child, whether or not the mother is present.
Solo interaction time	Number of hours per week the father spends in intermittent and intensive interaction when the mother is out of the house or not available.
Proportional Measures	
Proportional interaction time	Number of hours the father spends per week in intermittent and intensive interaction divided by the total hours both parents spend in such interaction.
Solo performance of child care tasks	The mean proportion of the time the father alone performs 11 child-care tasks (estimated). ^a
Performance of feminine chores	The number of hours per week the father spends doing a set of 5 traditionally feminine chores divided by the total time both parents spend doing those chores.

^a Scoring: 0-20% = 1; 20-40% = 2; 40-60% = 3; 60-80% = 4; 80-100% = 5.

Table 2

Intercorrelations Between Father Participation Variables

Participation	2	3	4	5
1. Total interaction time	.54***	.30***	.28***	-.15*
2. Proportional interaction time	-	.25***	.42***	.65***
3. Solo interaction time		-	.17*	.23**
4. Child-care tasks			-	.37***
5. Feminine home chores				-

Note: N = 160

* $p < .05$ ** $p < .01$. *** $p < .001$.

Table 3

Proportion Fathers Do of Traditionally Feminine and
Masculine Home Chores by Maternal Employment Status

Chores	Wife Employed	Wife Not Employed
Total Feminine Chores	19% (SD = 13%)	13% (SD = 12%)
Items		
Meal preparation	18%	12%
Laundry	13	5
Groceries	19	17
Clean house	17	11
Meal clean up	29	22
Total Masculine Chores	68% (SD = 22%)	65% (SD = 23%)
Items		
General repairs	70	75
Pay bills	48	49
Yard care	64	54
Car care	44	58

Table 4

Means and Standard Deviations of

Behavioral Flexibility by Grade and Sex

	Kindergarten		Fourth Grade	
	<u>M</u> ^a	<u>SD</u>	<u>M</u>	<u>SD</u>
Boys	14.29	2.42	14.23	2.01
Girls	13.98	2.92	13.41	1.71

^a Range = 9 - 18.

Table 5

Percentage of Sex-typed Responses by
Grade and Sex - Photography Measure

Item	Kindergarten		Fourth Grade	
	Boys	Girls	Boys	Girls
Football/jump rope	61.0%	70.0%	77.5%	46.2%
Train/dollhouse	68.3	65.0	79.5	53.8
Model kit/embroidery	51.2	50.0	62.5	66.7
Pilot/nurse	78.0	60.0	85.0	56.4
Police/secretary	46.3	55.0	27.5	71.8
Doctor/librarian	22.0	47.5	22.0	20.5
Shovel snow/serve dinner	61.0	52.5	40.0	23.1
Fix pipe/clean house	53.7	52.5	52.5	53.8
Fix car/baby care	73.2	50.0	80.0	48.7

Table 6

Children's Occupational Aspirations: Means and
Standard Deviations of Traditionality and Prestige

	Traditionality ^a		Prestige ^b	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Kindergarten				
Girls	2.11	1.17	50.83	15.44
Boys	2.82	0.72	51.03	13.95
Fourth Grade				
Girls	1.82	1.31	53.65	16.38
Boys	2.76	0.83	56.32	13.07

^a 3 = stereotyped, 2 = neutral; 1 = non-stereotyped

^b Siegel (1971) Scale

Table 7

Mean Stereotyping Scores by Grade and Sex

	Kindergartners		Fourth Graders	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Boys	-.770	.290	.934	.561
Girls	-.715	.561	.586	.932

Table 3

Means and Standard Deviations: Kindergarten
Children's Sex Role Stereotyping Questionnaire

Scale ^a	Boys		Girls	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Activities				
Preference	2.37	.23	2.28	.20
Competence	2.57	.22	2.42	.49
Who Should Do?	2.02	.42	2.02	.50
Adult Occupational				
Roles				
Preference	2.27	.26	2.27	.43
Who Should Do?	2.05	.38	2.02	.54
Difficulty ^b	-.09	.46	.46	.46
Competence	2.50	.22	2.41	.48
Beliefs re sex				
composition	2.51	.22	2.43	.63
Adult Family				
Roles				
Who Should Do?	2.50	.27	2.37	.72
Difficulty ^b	.11	.48	.39	.56
Own family	2.51	.26	2.39	.63

^a3-point scales

^bMean difficulty score for male items minus mean difficulty score for female items.

Table 9

Means and Standard Deviations: Fourth GradeChildren's Sex Role Stereotyping Questionnaire

Scale ^a	Boys		Girls	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Activities				
Preference*	3.04	.26	2.81	.57
Competence*	3.82	.31	3.58	.65
Who should do?	2.35	.45	2.17	.54
Adult Occupational				
Roles				
Preference*	2.95	.32	2.69	.52
Who should do?	2.45	.52	2.05	.51
Difficulty ^b	.60	.45	.54	.33
Competence**	3.74	.29	3.48	.86
Beliefs re sex				
composition**	4.00	.30	3.91	.67
Adult Family				
Roles				
Who should do?	3.70	.43	3.57	.62
Difficulty ^b	.36	.51	.55	.38
Own family**	3.78	.36	3.70	.68

^a4-point scales = *; 5-point scales = **

^bMean difficulty score for male items minus mean difficulty score for female items

Table 10

Zero-Order Correlations of Children's Mean Stereotyping
Scores and Fathers' Participation Variables by Grade and Sex

Fathers' Participation Variable	Kindergarten		Fourth Grade	
	Boys	Girls	Boys	Girls
Total interaction time	.02	.15	-.07	-.23
Proportional interaction	.15	.17	-.15	-.21
Solo interaction time	.09	-.01	-.14	.06
Child-care tasks	.16	.16	-.17	-.25
Feminine home chores	-.08	-.01	-.31	-.22

Multiple Regression Analyses:Stereotyping Scores of Fourth Grade Children

Predictors	Father Participation Variables									
	Total		Solo		Proportional		Child-		Feminine	
	Interaction		Interaction		Interaction		Care		Home	
	Time		Time		Time		Tasks		Chores	
	B	R ²	B	R ²	B	R ²	B	R ²	B	R ²
Step 1 Variables^a										
Child's sex	-.12		-.14		-.12		-.13		-.13	
Maternal employ-										
ment status	-.04		-.03		-.06		-.07		-.10	
Mother's attitude	.31*		.33*		.32*		.32*		.29*	
Father's attitude	-.02	.17*	-.03	.14	-.03	.17*	-.06	.17*	-.10	.18*
Father's partici-										
pation variable	-.16		.01		-.18		-.18		-.23	
Step 2 Interaction										
of participation										
variable^{b, c} with:										
Child's sex	-.14	.17	.24	.15	-.33	.18	-.58	.19	-.46	.20
Maternal employ-										
ment status	.65	.19	-.32	.15	1.10	.20	1.30*	.24*	1.00**	.28*
Mother's attitude	1.25	.22	-.75	.20	-1.13	.20	2.12**	.29*	.65*	.24*
Father's attitude	-.92	.21	.36	.16	-1.35*	.21	-.75	.20	-.72**	.28*

Note. For step 1 variables standardized regression coefficients are those from the first step.

^a For step 1, df = 5, 61.

^b For step 2, df = 6, 60.

^c Separate equations were estimated for each participation variable with each interaction term.

$p < .05$. $**p < .01$.

* The interaction term accounted for a significant increment in variance explained at the .05 level.